

What is claimed is:

1. A micro-perforated laminae having simultaneous liquid retention and gas venting capability, comprising a layer of material defining a total surface area and having a plurality of spaced-apart perforations defining a total open orifice area, wherein the total open orifice area comprises about 0.1% to 17.0% of the total surface area of the layer.
2. A micro-perforated laminae according to claim 1, wherein the perforations comprise slits each having a length of no more than about 100 mils.
3. A micro-perforated laminae according to claim 1, wherein the perforations comprise holes each having a diameter of no more than about five mils.
4. A micro-perforated laminae according to claim 1, wherein the total open orifice area is in the range of about 0.1 mm² to about 17 mm² per square centimeter of the total surface area.

5. A micro-perforated laminae according to claim 1, wherein the layer of material comprises at least one material selected from the group consisting of polypropylene, polyethylene, polyethylene terephthalate, nylon 6, nylon 66, polycarbonate, polyethylene terephthalate glycol, high impact polystyrene, polyacrylonitrile-butadiene-styrene, polyacrylate, polytetrafluoroethylene, polyvinylfluoride, cellulose acetate, polyvinylchloride, chloride, polyvinylidene fluoride, polyvinylidene chloride, linear low density polyethylene and low density polyethylene.
6. A micro-perforated laminae according to claim 1, wherein the layer of material comprises at least one selected from the group consisting of a film, foil, web and sheet.
7. A micro-perforated laminae according to claim 6, wherein the micro-perforated laminae has a weight of between 8 g/m² and 680 g/m².
8. A micro-perforated laminae according to claim 1, wherein the micro-perforated laminae simultaneously retains liquid and vents gas.

9. A micro-perforated laminae according to claim 1, wherein the layer of material comprises one or more selected from the group consisting of a thermoplastic material, metal foil, cellulosic film, paper and nonwoven.
10. A micro-perforated laminae according to claim 1, wherein the micro-perforated laminae defines first and second sides, and retains a predetermined level of water on the first side while allowing a predetermined level of liquid to pass through to the second side.
11. A micro-perforated laminae according to claim 10, wherein the micro-perforated laminae retains about 25-60 centimeters of static water head on the first side.
12. A micro-perforated laminae according to claim 10, wherein the first and second sides have a contact angle of water in the range of about 36 to 42 degrees.

13. A micro-perforated laminae according to claim 1, wherein the layer of material is mechanically micro-perforated, and the perforations comprise micro-slits having a length of about one millimeter each and are spaced-apart on the layer at a density per square area ranging from 10 cm centers to 0.2 cm centers.
14. A micro-perforated laminae according to claim 13, wherein the layer of material comprises a diamond micropattern film.
15. A micro-perforated laminae according to claim 14, wherein the film comprises linear low density polyethylene and low density polyethylene.
16. A micro-perforated laminae according to claim 1, wherein the layer of material is mechanically micro-perforated, and the perforations comprise micro-slits having a length of about one millimeter each and are spaced-apart on the thermoplastic layer at a density per square area of 0.2 cm centers.
17. A micro-perforated laminae according to claim 16, wherein the layer of material comprises low density polyethylene.

18. A micro-perforated laminae according to claim 17, wherein the micro-perforated laminae defines first and second sides, and the second side has a silicone release coating.
19. A micro-perforated laminae according to claim 18, wherein the first side has a contact angle of water of about 38 degrees, and the second side has a contact angle of water of about 60 degrees.
20. A micro-perforated laminae comprising:
 - (a) a first layer of a hydrophobic thermoplastic material;
 - (b) a second layer of a hydrophilic thermoplastic material, whereby liquid on the first layer is allowed to pass through the laminae and liquid on the second layer is not allowed to pass through the laminae.
21. A micro-perforated laminae according to claim 20, wherein the first layer has a dyne level of about 8 to 12, and the second layer has a dyne level of about 45 to 55.

22. A method of making a micro-perforated laminae comprising the steps of:
- (a) providing a layer of material defining a total surface area; and
 - (b) micro-perforating the layer to form a plurality of spaced-apart perforations defining a total open orifice area, wherein the total open orifice area comprises about 0.1% to 17.0% of the total surface area of the layer.
23. A method of making a micro-perforated laminae according to claim 20, wherein the step of providing a layer of material comprises providing a layer of thermoplastic material, and the step of micro-perforating the layer comprises micro-perforating the thermoplastic layer to form a plurality of micro-slits having a length of about one millimeter each spaced-apart on the layer at a density per square area ranging from 10 cm centers to 0.2 cm centers, the micro-slits defining a total open orifice area comprising about 0.1% to 17.0% of the total surface area of the layer.